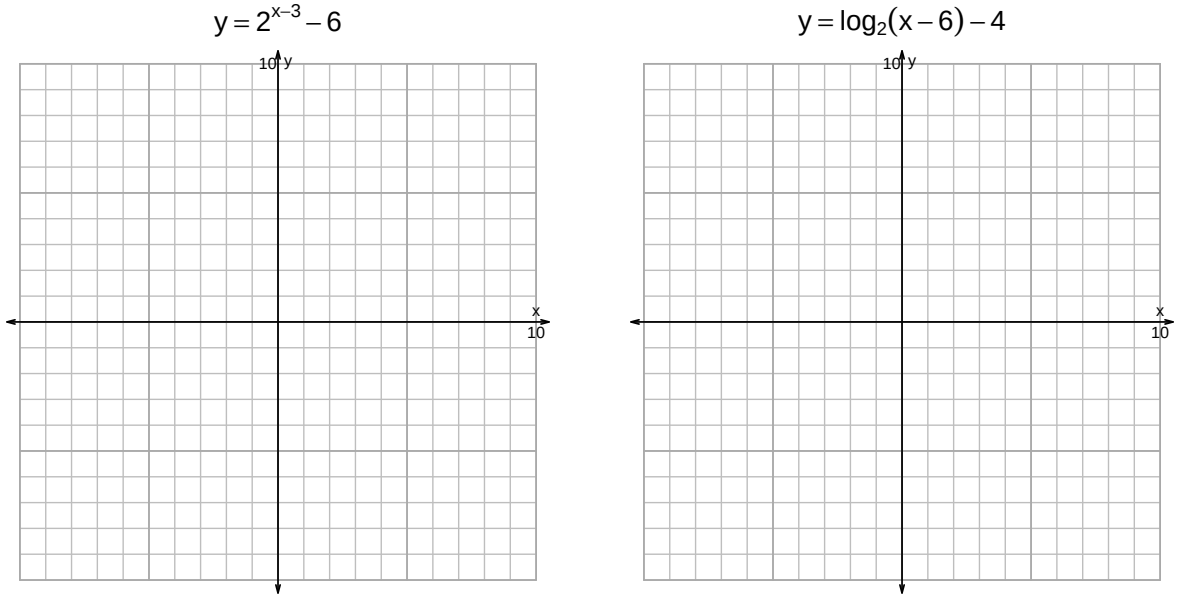
Name: Date:

S18QUIZ: EXP LOG (QUIZ V293)

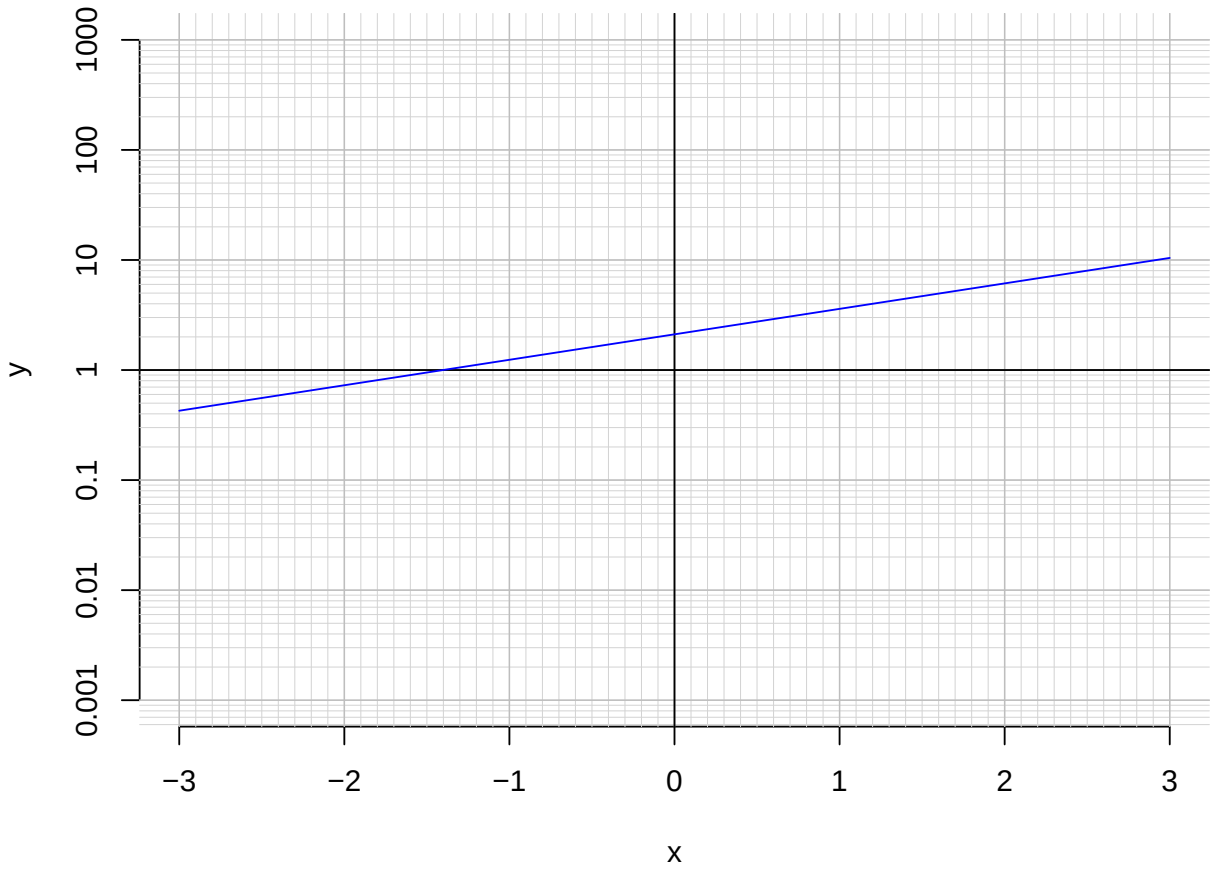
1. Graph $y = 2^{x-3} - 6$ and $y = \log_2(x-6) - 4$ on the grids below. Also, draw any asymptotes with dotted lines.



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$-29 = \left(\frac{-5}{3}\right) \cdot 10^{-7t/4}$$

3. An exponential function $f(x) = 2.11 \cdot e^{0.533x}$ is graphed below on a semi-log plot.



a. Using the plot above, evaluate $f(-1.6)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(4)$.